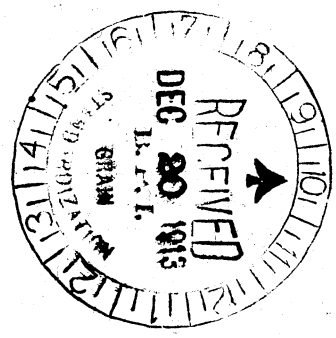

PLANT IMMIGRANTS

Issued monthly by the Office of Foreign Seed and Plant Introduction, Bureau of Plant Industry, Department of Agriculture.

No. 89. September 1913.

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PLATE: Artocarpus odoratissimus. Marang.

(NOTE: Applications for material listed in this bulletin may be made at any time to this Office. As they are received they are filed, and when the material is ready for the use of experimenters it is sent to those on the list of applicants who can show that they are prepared to care for it, as well as to others selected because of their special fitness to experiment with the particular plants imported.

One of the main objects of the Office of Foreign Seed and Plant Introduction is to secure material for plant experimenters, and it will undertake as far as possible to fill any specific requests for foreign seeds or plants from plant breeders and others interested.)

Antidesma bunius. (Euphorbiaceae.) 36088. Seeds of the bignai from Manila. Presented by Mr. O. W. Barrett, Chief, Division of Horticulture, Philippine Department of Agriculture. "A small, reddish, currant-like fruit, produced on a small to medium-sized tree of common occurrence and easy culture." (Barrett.) For distribution later.

Artocarpus odoratissimus. (Urticaceae.) 36256. Seeds of the marang from Lamao, Bataan, Philippine Islands. Presented by Mr. P. J. Wester, Horticulturist, Division of Horticulture, in charge of Lamao Experiment Station. "These seeds were collected in Zamboanga during my recent trip to Mindanao. This is my second opportunity to test the marang, and I have no hesitation to declare it as one of the coming tropical fruits even in its present undeveloped state. It is very sweet and rich in flavor, and has the unique quality of having a flesh that separates readily and absolutely from the seeds and the skin. As far as I have been able to ascertain the marang occurs only on the south coast of Mindanao and in the Sulu archipelago. On my return to Manila I met on the steamer a missionary that had lived in Borneo for three years, part of which time was spent in Sandakan; she had neither heard of nor seen the fruit before. The marang will probably not succeed except where the climate is warm and humid throughout the year and the atmosphere close and still. The tree is also known as madang. It is a medium-sized tree with large dark-green leaves, entire or more or less conspicuously trilobate, 18 to 24 inches long and 10 to 12 inches broad, similar in habit to the breadfruit, and is found on the south coast of Mindanao and in the Sulu archipelago, and was first described from Mindoro. The fruit is large, about 6 inches long and 5 inches in equatorial diameter, roundish oblong, regular, thickly studded with soft greenish-yellow spines about one-third of an inch in length on the outside; rind thick and fleshy; flesh white, sweet, rich, juicy, aromatic and of good flavor, separated into segments (of about the size of a grape) clinging to the core; each segment containing a seed; seeds many, whitish, one-third by three-fifths of an inch, smooth, separating readily from the flesh. When the fruit is ripe, by passing a knife around and through the rind, with a little care the two halves separate from the flesh leaving this like a bunch of white grapes. Ripe fruits were obtained in August. The marang is far superior to its relatives, the jak and the ordinary breadfruits found in the Philippines, and already in its present form is a remarkably good and attractive fruit. The tree was noted by the writer in Zamboanga and Davao." (Wester, in the Philippine Agricultural Review, November 1912, and in correspondence.) For distribution later.

Atalantia racemosa. (Rutaceae.) 36102. Seeds from Gaganbavda, Kolapur District, India. Presented by Mr. R. R. Dhavle. "A small tree or shrub, differing from the other species of Atalantia in that it is always unarmed. It is found in the lower mountain regions of Ceylon, in Southern India and in the western peninsula from the Concan to Travancore. In February the plant produces its white flowers which are arranged in short but distinct racemes with the peduncles a little less than a quarter of an inch in length. The berry is globular-ovoid, three-fourths of an inch wide with a long epiculus, four-celled, four-seeded." (Trimen, Handbook of the flora of Ceylon, and Hooker, Flora of British India.) Introduced for the citrus breeding work of the Office of Crop Physiology and Breeding Investigations. For distribution later.

Brassica pekinensis. (Brassicaceae.) 36113. Seeds of the petsai cabbage from Peking, China. "A large variety of chinese winter cabbage coming from near Tientsin, called 'Ta pai tsai.' Chinese winter cabbage is a vegetable of first class quality, having a rich flavor all its own. It is very much easier digested than the ordinary cabbage and emits no offensive odors when boiled. It can be served in many different ways and may be eaten boiled or stewed, raw, pickled or salted. To obtain the best results a rich well worked soil is needed, the plants must have a space of about two feet in all directions and they must be regularly cultivated, and they must never suffer for lack of sufficient soil moisture. The best time for sowing the seed is about the end of July or early in August; for regions with a very long summer even later will suffice. To keep them during the winter the Chinese proceed this way; after the first heavy night frost the cabbages are pulled out by a twist of the hand, the earth roughly shaken off the roots and the plants left lying on the field for a day or so to dry them off, then the outer leaves are pulled off, the dry soil beaten from the roots and the cabbages brought to dry dug-out cellars, where they are neatly stored layer on layer with the heads facing the entrance. Dry straw is now put over them and the whole covered with a heavy coat of soil. When stored carefully they last until late next spring. The roots must never be cut off as otherwise the plants begin to rot. When grown for seed the roots with just an inch or so of the leaf-stumps left on them are planted out in the spring on a special piece of land, where the soil is not too heavy. They soon form new rootlets and in a short time stalks rise up with but very scanty foliage and bearing pale yellow flowers. The process of setting seeds

takes but little time. When all goes well one has fresh seeds again in early or middle July. From the nature of the climate of north China one might predict that this cabbage will do well in those parts of America where in late summer and fall the days are warm and dry but the nights are cool and where the soil is a trifle saline and is irrigated." (Meyer's introduction.) For distribution later.

Bunchosia costaricensis. (Malpighiaceae.) 36101. Seeds of the cereza from San Jose, Costa Rica. Presented by the Costa Rican Department of Agriculture. "Fruit of medium quality and in no way comparable with the true cherry (cereza) of Europe. The tree is indigenous and often cultivated in gardens. The fruit is often called tereza, which is but a corruption of the name cereza." (Pittier, Plantas usuales de Costa Rica.) For distribution later.

Dahlia sp. (Asteraceae.) 36257. Seeds of a wild dahlia from Contreras, Federal District, Mexico. Presented by Mr. William Brockway, Superintendent Hotel Imperial gardens. "From information given me by Prof. Pringle, who collected extensively for many years in Mexico, I am led to believe that the wild dahlia growing on both sides of Ajusco mountain along the line of the Cuernavaca division of the Mexican National Railway is the variety from which the cultivated dahlias were originated. They grow at an elevation of about 8000 feet, and during the dry season these plants dry down and commence their growth again about June 1, flowering about the month of September, although I have several specimens growing in my garden that are now beginning to flower in July, having been irrigated a little. All the varieties I have noted here are single flowered and none inclining to the cactus type. I have found at least twenty colors and note some tending to the collarette type, that are mostly self colors ranging from various shades of red through orange, lemon and violet to white. Some varieties are of very robust growth mostly growing to a straight single stalk, branching out on all sides exactly like a young specimen fruit tree. They are very floriferous and I have often dug clumps of a mass of tubers that would weigh up to 10 pounds. Several of these varieties would prove of value on account of the size, strength and beauty of the full grown plant." (Brockway.) For distribution later.

Eriobotrya japonica. (Malaceae.) 36210. Cuttings of a loquat from Rome. Presented by Dr. Gustav Eisen, San Francisco, California. "Apple loquat from Boscotrecase.

It is very early as it matures in Rome in May. It is only a week later than the pear loquat, and must be classed as one of the very early desirable fruits." (Eisen.) For distribution later.

Juglans regia sinensis. (Juglandaceae.) 36082. Walnuts from Tientsin, China. "Chinese walnuts coming from Changli, Chili province, north China. Obtained through the efforts of the Hon. Samuel S. Knabenshue, American Consul-general at Tientsin. These Changli walnuts have erroneously been called Manchurian walnuts by some people because they come from near the Great Wall and this nomenclature has given rise to newspaper reports that fine walnuts were grown in Manchuria. There is however a wild walnut in Manchuria, *Juglans mandshurica*, which grows into a stately tree, of which the wood is valuable, but the nuts are not fit for human consumption. From preliminary experiments it seems that these North Chinese walnuts are of a decidedly hardier nature than the forms which occur in western and southern Europe and in north-western Asia." (Meyer's introduction.) For distribution later.

Michelia champaca. (Magnoliaceae.) 36090. Seeds of the champac from Lal Bagh, Bangalore, India. Presented by the Government Botanic Gardens, Lal Bagh, through Mr. F. W. Popenoe of this Office. "This is a tall, handsome evergreen tree, known under the vernacular name of champac. Its flowers are pale yellow and very fragrant. It may be of value as an ornamental tree for extreme southern Florida." (Popenoe.) For distribution later.

Nymphaea stuhlmanii. (Nymphaeaceae.) 26258. Seeds of a water-lily from German East Africa. Presented by the Usumbwa company, Nyembe-Bulungwa, Port Tabora. A tropical water-lily with sulphur-yellow flowers, having orange-yellow stamens and yellowish green sepals, the flowers being from 4 to 6 inches across and very sweet scented. Introduced for breeding purposes at the request of Mr. E. D. Sturtevant, the breeder of water-lilies. For distribution later.

Panax quinquefolium. (Araliaceae.) 36175. Seeds of ginseng from Songdo, Korea. Presented by Mr. C. H. Deal, Anglo-Korean School, at the request of Mr. Noble, of the Northern Methodist Mission in Korea. "This is perhaps the most famous section in the whole world for the cultivation and production of ginseng. A few years ago its cultivation dropped out but now if anything it is being cultivated more widely than ever. These seeds are fresh and as yet are not thoroughly dried. As you know when they are

dry they are very hard, so hard that they must be soaked in water until thoroughly wet and planted where they will freeze so as to burst open the shell." (Deal.) For distribution later.

Prunus tomentosa. (Amygdalaceae.) 36086. About 42000 seeds of a bush cherry from Tientsin, China. "A fruit, eminently suited for the home garden in the colder, semi-arid sections of the United States. The Chinese most times bud or graft this bush-cherry on the remarkably thrifty wild peach *Amygdalus davidiana*, on which stock it takes a much more vigorous growth and is also better able to withstand drought and adverse conditions than when left on its own roots. Chinese name 'Ying tau'r'." (Meyer's introduction.) For distribution later.

Prunus triloba. (Amygdalaceae.) 36112. Seeds of a flowering plum from Pekin, China. "A flowering plum much cultivated in the gardens of north China and existing in a great many varieties. The color of its flowers ranges from pale pink to a dark violet-rose, while as regards size, degrees of doubleness, profusion, difference in time of opening and in the lasting qualities a very great variation exists. The Chinese in the north always graft or bud this flowering plum on the wild peach (*Amygdalus davidiana*.) This is mostly down low in the ground but one also finds specimens budded high up and trained as standard trees. In this way a specimen looks fine when planted in a formal courtyard. This flowering plum is also a great favorite with the Chinese for forcing and thousands of dollars worth of them are disposed of every winter. The few fruits that these bushes bear possess no value, being the size of a cherry and having a large stone covered with an inedible hairy skin of a yellowish-red color when ripe. This shrub is much recommended for ornamental purposes all over the temperate parts of the United States and especially for the drier sections when grafted on *Amygdalus davidiana*. For forcing purposes when budded on this stock it may give surprising results for earliness. The Chinese name is 'Yu ye mei hua' which means 'Elm-leaved flowering plum.'" (Meyer's introduction.) For distribution later.

Raphanus sativus. (Brassicaceae.) 36115. Seeds of the Chinese winter radish from Peking, China. "A fine variety of the long, green winter radish called 'Ching loba.' Especially recommended for its stomachic properties. As a winter vegetable, especially for those doing hard manual labor, this Chinese winter radish will be of inestimable

value and special effort should be made to make the American public acquainted with it." (Meyer's introduction.) For distribution later.

Saraca indica. (Caesalpiniaceae.) 36092. Seeds from Lal Bagh, Bangalore, India. Presented by the Government Botanic Gardens, Lal Bagh, through Mr. F. W. Popenoe of this Office. "One of the handsomest of Indian ornamental trees, producing large heads of the most brilliant scarlet flowers imaginable. While restricted to the tropical sections of India, it may be sufficiently hardy to succeed in south Florida." (Popenoe.) For distribution later.

Ugni molinae. (Myrtaceae.) 36132, 36150-151. Seeds of the murta from Chile. Collected by Mr. W. F. Wight of this Bureau. "'Murta' or 'Murtilla.' A shrub 4 to 8 feet high with rather ornamental foliage, but esteemed in Chile for its berries which are from one-fourth to one-half inch in diameter and very palatable. They are often gathered and sold on the market in various towns, and a 'dulce' is made from them that is considered excellent. No attempt has so far been made to cultivate this shrub in Chile, but by careful selection no doubt the size and quality of the fruit could be improved and something of value developed. It is rather widely distributed, growing in the region of dry summers as well as in Chiloe." (Wight.) For distribution later.

Zea mays. (Poaceae.) 36185-195, 36197-209, 36211-253. Seeds of corn from Peru and Bolivia. Collected by Mr. W. F. Wight of this Bureau. Sixty-six varieties of corn from La Paz, Arequipa, Cuzco, etc. For distribution later.

NOTES FROM CORRESPONDENTS ABROAD.

Egypt. Cairo. Mr. S. C. Mason writes September 29: I reached Cairo yesterday morning after an absence of 18 days on a trip to Sudan. As the Sudan government is in most matters very distinct from Egypt, I found it necessary to act through our consul and the Sudan agency in Cairo, who sent me direct to Khartum, from which point all Sudan officials had been notified of my coming, so I was in receipt of every official and personal courtesy from the time I reached the Sudan border, even my start from Cairo and the changes from train to boat being made comfortable. Berber I found had been so decimated by the Mahdi that it was not worth while to stop there. As I had to await train day to get into Dongola I went one day up the Blue Nile to Tayiba where they operate a government

farm for testing Egyptian cotton growing. This Gaziera country between the two Niles is an ancient flood plain or delta formed by the two rivers at flood before the Shabluka Gorge was cut down to the present level.

The Sudan government is allowed to divert "flood water" July 15 to February 15 onto this land. They have a big steam plant now, but appropriations for a weir up the Blue Nile that will give the head for the whole region. A few years of experiment shows 500 to 800 pounds lint cotton to the acre produced at very low labor cost. The crop is planted *after* July 15 and as I saw it made a fine showing over very large tracts. With a great development, whether the same low priced labor conditions will prevail is, of course, the vital question. With the immense grazing areas in the back country, it looks as though stock feeding and cotton producing rotations might be developed that would keep up the quality of land and make this, as Khartum people claim, a second Nile delta, with cheap transit via Port Sudan and the Suez. If this proves true this country will become an enormous factor in the fine cotton problem of the world.

The Dongola province is the great date-producing region of Sudan, but they claim that all their important varieties come from the Succote country, a rather small section below Kerma, now in Halfa province for administration; that is the source for offshoots for purchase as the Dongola people will not sell but are increasing their area as fast as they can.

They have four important kinds: (1) Barakawa, a long, slender, very hard, dry date which comprises nine-tenths of all their trees. The fruit is said to keep two years and is largely sold to the desert tribes. (2) The Gondala is a smaller and softer date, yellow before ripening, which dries well, but is rich and softer, and sometimes sold in Cairo by special contract, a date well worth planting. (3) The Kulma or Kosha, a large brown date, soft and rich, reminding one of the Tafilelt, but with a good deal of tough rag, the most rare variety. (4) The Bentamouda, the prize of the lot, which will take place with the Deglet Noor and ahead of Menakher. Only men of consequence have a few trees of this variety and the fruit is kept for special festivities and for distinguished guests. These men do not sell their offshoots but they are highly esteemed gifts, though a few can be bought in Succote country, and a very reliable Shiek promises to get me a supply in February. I did not try getting in there, in fact, it is doubtful if they would have put me in, as a Camel Corps is being sent out now to form near Dongola to repel raiders from the back country armed with rifles

captured from the Italians. These people move offshoots in the late summer, setting them out at once. Their time to take them off is February, if they have to go a long distance. By agreement with the governors of Dongola and Halfa, aided by the old Shiek, a supply of all these varieties will be secured then and Brown has a very well trained man who will go down there for them. I can learn of no date called "Succotah." It must be one of these four varieties, taking the name from having come from the Succote country. Mr. Brown does not know its true characters.

This "Bentamouda" or "Bintamoda" may be the "Bartamoda" which Aaronsohn found a few of at Assouan. Gondala has been brought down there from the Succote country. From the fact that the name Barakawa does not appear in any list and is the great export date, first of Succote, then of Dongola, I am of the opinion that the date of Aaronsohn's list, S.P.I. number 32713, may prove to be this variety. The twenty offshoots secured, 10 Bentamouda and 10 others, will be planted by Brown till spring, when we will send them on with the lot to be cut in February. They came in fine condition. I am debating whether to go into Dakhla Oasis where Mr. Brown thinks the true Sultani comes from. It will take a five days' camel journey from Khargeh, the end of the branch railway. Birket el Haggi is only a district, the variety is Hayany, which with Zaglool and Samani are dates adapted to a much cooler climate and are grown along the shore dunes near Ramleh, Edkou and Rosetta *without irrigation*. They should be best suited to Phoenix and Tempe, and perhaps succeed at Santa Barbara and San Diego, California.

Egypt. Dakhla Oasis. Prof. Mason also writes, October 15; "This is about as far into the real desert as I expect to address a letter from. I find that the long arm of the Egyptian-English Government reaches here in a mild form, but one which affords a weekly camel past, so can start this word toward the Nile in the morning. This is the Capital of the oasis and the seat of a court, has a Government doctor here and so on.

We left the hotel in Kharga Saturday at 6 A. M., mule trolley over the narrow gauge to Kharga whence we took the camels. I have a very good English speaking Egyptian in charge who lived here for two or three years in the employ of the "Company" and knows nearly every one. We reached the first water yesterday about 2 P. M. and spent the night there, came in here with the guide and one baggage camel at 1:30 to-day. Not much poetry of motion about a camel on the "trot" but I have stood up to the punishment

better than I had feared or hoped. We were met here by a delegation from the chief date village, fine menn, who wanted to take us on to their town at once, but I prefer to rest till tomorrow. The great trade date is the Siady, as they pronounce it, which goes by caravan to "rail end" at Kharga. There are a few trees of Sultany reported but said to be very old and I can as yet learn of no young ones. Will send what fortune later.

What do you think of *rice* on the heaviest red adobe land, too strong in salt and alkali for barley? Some of it is now turning brown; harvest in November. It is said to have been here from Roman times. This looks to me to be the biggest find of the trip. I am arranging for a camel load of the new grain to be sent to the rail end. Expect to start back in four or five days, when I shall hope to have found Sultany offshoots."

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China. Pekin. Mr. Frank N. Meyer, agricultural explorer, writes September 16: "Last Sunday night (Sept. 14) I returned here to Peking from an extended journey into the mountainous regions, West and N. W. of Peking, where I have been studying up the tree and shrub flora of the Hsiao Wui tai shan, the different varieties of persimmons, some cherry plantations and walnut and chestnut trees. As regards collecting herbarium material in Hsiao Wu tai shan, I have been quite successful, I think, for I have over *80 sp. of woody plants* in my possession now. In so far as the persimmon question is concerned I have not been very lucky, for we have a very bad persimmon year here around Peking. Sometimes trees haven't a single fruit on them. The Chinese say that the early rains ruined the flowers and no fruit was set. One grower stated there were such things as trees which bore either exceedingly little or even no fruit at all (in other words male trees). He stated however that the Chinese rebudded such trees as soon as they found out such facts. About the equatorial incision being closer to the peduncle or farther away from it, we were told that really no attention was being paid to it by anybody. The big majority of fruits (Tamopans) that I have seen however seem to have the incision closer to the peduncle than in the middle of the fruit. Of the cherries I have taken photos of the trees and collected herbarium material, that is of the sweet cherries; of the real bush-cherry (*Prunus tomentosa*) I have not seen a single good plantation on this trip. One finds it extremely difficult to obtain correct information regarding minor matters in fruits. The one Chinaman knows less than the other. The fruit dealers too

know most times not where their supplies really come from, they buy them up from here and there and everywhere and as China is the land of small doings and of everybody for himself and as almost no cooperation exists, it truly *is* hard to get exact information. On chestnuts I have to say but little, as the districts I went through possessed but very few chestnuts. I noticed however small outbreaks of bark-disease, even on isolated trees and suspect that this disease really is as old as the hills here in North China. Of walnuts we didn't see any groves like one encounters nowadays in Southern California, only scatterd trees here and there and such variation as regards quality and size of nuts. The Chinese haven't managed yet to graft the walnut, hence all trees are seedlings and therefore they all vary so much. In the Hwai lai district and right up to the Hsiao Wu tai shan, I found lots of *Medicago ruthenica* and for *grazing purposes* and *for grazing purposes only, at least for the present,* I consider this wild alfalfa much more valuable than *M. falcata*. It is specially suited for the intermountain sections of the United States and I wonder whether much attention has been paid already to this valuable forage plant. I collected only a small quantity of the seeds, but enough to grow a little plot of it somewhere. In *Kalgan* I obtained seeds of the largest variety of *Kohlrabi* in China, good sized specimens weighing as much as *25 pounds*. Some vegetable dealer ought to make some noise about this, don't you think so?"

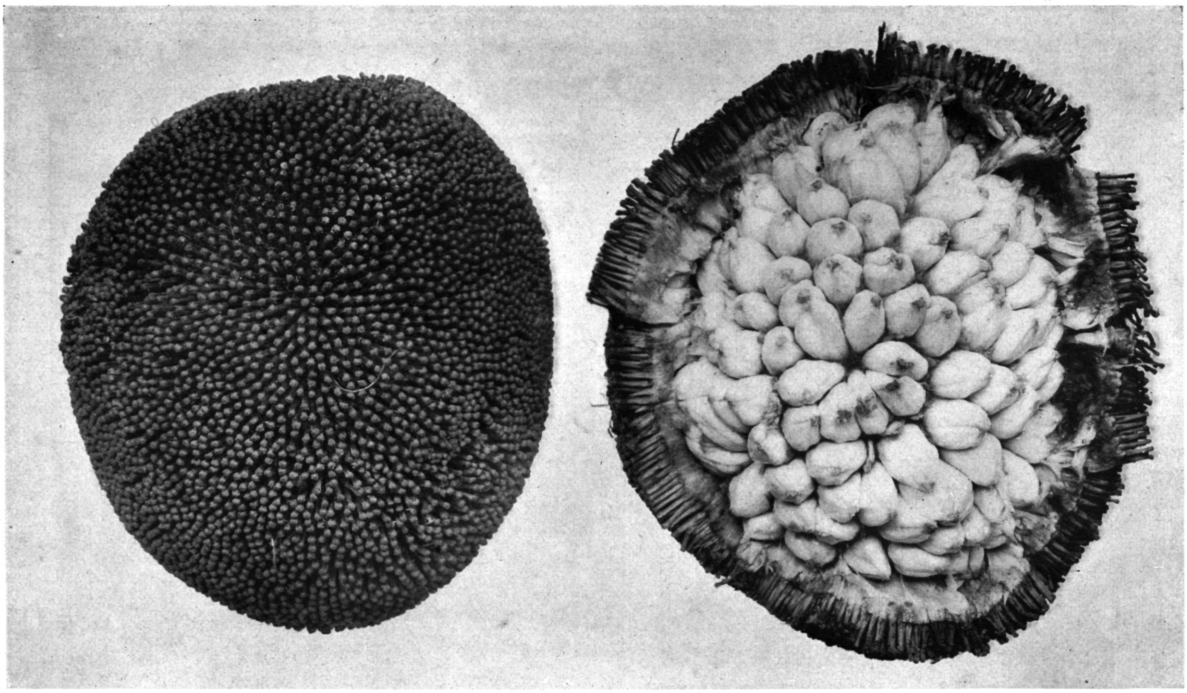
Mr. Meyer also writes under date of September 24 and 27. "I leave Peking early October 1913, by train to Honanfu, by cars from Honanfu to Sianfu, Shensi, passing through the great persimmon region of North China. From Sianfu to Lanchowfu, Kansu, passing through more persimmon districts and through jujube orchards. Returning from Lanchowfu either along the same road or by other ways, collecting cuttings and scions en-route. Back in Peking in early January. Shipping off all colle tions. End of January 1914, or early February, to Shantung, especially around Tsinanfu, collecting peaches, jujubes, persimmons and large fruited haws. Back in Peking toward the end of March or early April, 1914. Then making ready for a big exploration trip of the mountains and valleys of the Kansu province, starting out from Lanchow in all directions, collecting herbarium material during the summer, seeds in the fall, and scions and cuttings during the winter 1914-1915. Towards spring back to the coast and leaving perhaps by way of Japan and the Panama Canal for New York, arriving in Washington before the close of the fiscal year 1914-1915. This present winter's trip into Kansu is one

of reconnoitering more than one of thorough exploration, but as Kansu is difficult land I first want to become acquainted with local conditions before starting out on anything very big."

"In the splendid bracing autumn weather which we are experiencing here these last days I have seen several Chinamen carrying plants of the deliciously fragrant tea-olive *Olea fragrans* through the streets of the city here. These plants are all grafted on *Ligustrum sp.* (*L. sinense* or *L. quihoui?*) In the Shantung Province however they use as stock *Chionanthus retusa*, while in Central China the plant thrives on its own roots.

"Now this thought occurs to me. Our olive is a very near relative of this *Olea fragrans*, our olive suffers much here and there from frosts, from ill-drainage and from root-rot. Could not we make some extensive experiments in grafting or budding olives of various species of Ligustrum on various species of Chionanthus and on various species of Fraxinus, with the aim to make *Olea europaea* hardier, more resistant to various uncongenial factors and above all to make it more fruitful? Have also experiments been made already, for so far as you are aware, to make "standard" trees out of *Forsythia vir dissima* and *F. suspensa* by grafting it on Ashes, Fringe-trees and Privets or Lilacs, for instance on *Syringa amurensis*? Since this whole family of *Oleaceae* seems to bear grafting and budding of one species on the other so remarkably well, our office might be able to produce something remarkable along these lines. For the olive I should say the large-leaved evergreen *Ligustrum lucidum* would make a fine stock. This tree privet does well in gardens in the city of San Antonio, Texas. *Chionanthus retusa* S.P.I. 21617 might also be a good stock for same.

"We are having here a very bad persimmon year, few fruits are coming in. The growers say it was the early rains which prevented the fruit from setting and even when set, water that lodged beneath the large calyx caused the young fruit to drop. As such I have not quite been able to make out whether all fruits on a tree are exactly alike as regards the position of the incision around or whether there is a variation among them even on one tree. Yesterday I obtained some fruits from a seller and two varieties were all mixed up; one a very flat form, with the incision close to the calyx and the other, somewhat rounder, with the cut more toward the middle of the fruit."



Artocarpus odoratissimus. The marang, S.P.I. No.36256.

This remarkable relative of the Breadfruit, from the south coast of Mindanao and the Sulu archipelago, described in the text of this bulletin by Mr. P. J. Wester, who first described it pomologically, shows what horticulturists in our tropical territory may expect from a careful exploration of the less known regions in the tropics. It is described as very sweet and rich in flavor, having flesh that separates readily and absolutely from both seed and skin. The fruit is large, about 6 inches long and 5 inches across, the thich fleshy rind studded with soft greenish-yellow spines, the flesh, white, sweet, rich, juicy, aromatic and of good flavor, separated into segments about the size of a grape, which cling to the core. The ripe fruit is readily cut through the rind which may then be easily removed leaving the flesh like a bunch of white grapes. From half-size photograph, presented by Mr. P. J. Wester, horticulturist of the Philippine Department of Agriculture.